DEPARTMENT OF THE ARMY
UNITED STATES ARMY GARRISON BAUMHOLDER
UNIT 23746
APO AE 09034-0003

REPLY TO ATTENTION OF

IMBM-ZA

MEMORANDUM FOR SEE DISTRIBUTION

SUBJECT: Standing Operating Procedure (SOP) for Elimination of Ozone Depleting Substances (ODS) within the Installations of the USAG Baumholder

1. References.

a. Answers to ODS questions from November IPR in Weinheim, Debra Dale, IMCOM-E Europe, e-mail, 11 Feb 04.

b. AR 200-1, Environmental Protection and Enhancement, 13 Dec 07.

c. DA ACTION MEMO, Elimination of Ozone Depleting Chemicals (ODCs) in Army Facilities, 25 Nov 02.

d. DA MEMO, Change in Army Policy for the Elimination of Ozone Depleting Chemicals, 7 Jan 03.

e. DoD 4160.21-M, Defense Materiel Disposition Manual, Aug 97.

f. Chemikalien-Ozonschichtverordnung – ChemOzonSchichtV (German Ordinance on Ozone Depleting Substances), 13 Nov 06.

g. German Final Governing Standards (GFGS), Feb 10.

h. Ozone Depleting Substances Turn-in and Requisitioning Procedures, Defense Distribution Depot Europe (DDDE), Germersheim, https://denix.ods.mil/denix/Public/News/DLA/ODS/sect2.html.

i. Regulation (EG) No. 1005/2009 of the European Parliament and of the Council on Substances that Deplete the Ozone Layer, 16 Sept 09.

h. USAREUR-wide Ozone Depleting Substances Survey Update, Oct 04.

i. Verordnung (EG) Nr. 842/2006 des Europäischen Parlaments und des Rates — … Zertifizierung von Unternehmen und Personal in Bezug auf bestimmte fluorierte Treibhausgase enthaltende ortsfeste Kälteanlagen, Klimaanlagen und Wärmepumpen … (Regulation (EC) No 842/2006 of the European Parliament and of the Council, … conditions for mutual recognition

for the certification of companies and personnel as regards stationary refrigeration, air conditioning …).

2. Purpose. Establish practices and provide guidance for handling, servicing, and disposal of ODS containing equipment at facilities located within the installations of the USAG Baumholder in order to ensure compliance with legal and other requirements.

3. Scope. This SOP applies to all personnel working at/for facilities that store, use, or service ODS containing equipment, to include supervisors and maintenance personnel. All repairs, including leak repairs and services to appliances, industrial process refrigeration units, air conditioning units, and motor vehicle air conditioners, must be performed using commercially available refrigerant recovery/recycling equipment operated by trained personnel. Refrigerant technicians shall be certified and trained in state of the art recovery/recycling procedures, leak detection, safety, shipping, and disposal in accordance with recognized industry standards or German equivalent.

4. Definitions.

a. DPW – Directorate of Public Works.

b. ED – Environmental Division.

c. ODS – Ozone depleting Substances.

d. GFGS – German Final Governing Standards.

5. Responsibilities.

a. DPW ED Media Manager.

(1) Keeps an inventory of all ODS-containing equipment within the installations of the USAG Baumholder.

(2) Adapts the ODS inventory IAW the data received from the Facility Managers.

(3) Will provide the Facility Managers with an up-to-date printout of the ODS inventory concerning his/her facility/ies upon request and periodically as equipment is upgraded, replaced or removed.

(4) Update this procedure as needed.

b. Facility Manager.

(1) Has the overall responsibility for all activities performed within and/or on behalf of a facility. This includes the responsibility for all equipment used within the facility to be in compliance with legal and other requirements, such as applicable technical standards.

(2) Ensures all precautionary measures practicable are taken to prevent and minimize leakage of ODS. In particular, fixed equipment with a refrigeration fluid charge of more than 3 kilograms needs to be checked annually for leakage (Dichtheitsprüfung).

(3) Ensures that ODS containing equipment out of operation is not leaking ODS, and is disposed of IAW legal and other requirements, such as DDDE requirements, as soon as it becomes clear that the equipment will not be returned into operation.

(4) Ensures that all of class II ODS in refrigeration and air-conditioning equipment is replaced, removed, or upgraded with a non-ODS refrigerant when the refrigeration portion of the equipment needs to be serviced starting NLT 1 January 2015.

(5) Is responsible for funding the necessary equipment upgrades/replacements as soon as possible.

(6) Ensures that the Technical Supervisor will develop an upgrade and replacement schedule for the affected equipment in his/her area of responsibility (AOR), and communicate this schedule to the DPW ED.

(7) Will inform the DPW ED on all changes that might affect the ODS inventory.

c. Technical Supervisor.

(1) Ensures that there exists a current list of all ODS containing equipment within his/her /their area of responsibility. This list shall contain all information necessary for keeping the Garrison-wide ODS inventory up-to-date, and needs to be communicated to the Directorate of Public Works, Environmental Management Office (DPW ED, DSN 485-6146) semi-annually.

(2) Ensures only qualified personnel/contractors are inspecting, servicing and/or shutting down ODS containing equipment using appropriate equipment.

(3) Ensures leaks are closed immediately after detection.

(4) Develops and implements measures (operational controls) to prevent leakage from class II ODS containing equipment, as any class II ODSs or fluorinated refrigerants

shall not be released in the course of maintaining, servicing, repairing, or disposing of refrigeration equipment.

(5) Communicates the contents of this SOP to all personnel in his/her AOR who are involved in handling, servicing or turning-in ODS containing equipment.

(6) Ensures that the following documents/records are kept at shop level:

(a) Record of all ODS maintenance work and the amounts of recovered ODS for at least 5 years.

(b) Disposal documentation for at least 3 years after closure of facilities.

(c) Copies of the certificates and training records of all personnel in their area of influence who perform inspections, service or turn-in/dispose of ODS containing equipment.

(d) Records of replacement schedule for the affected equipment.

d. Certified Technician.

(1) Apply all precautionary measures practicable to prevent and minimize leakage of ODS.

(2) Can provide their expertise to recover restricted use ODS and preparations containing more than 1% of restricted use ODS, and/or:

(a) to inspect and service facilities, equipment, and products that contain more than 1 kg of restricted use ODS either in pure form or as part of a preparation.

(b) Expertise can be proved either by a certificate of an appropriate authority attesting the necessary knowledge for the intended scope of duties, or for air conditioning and refrigeration systems by the titles ‘Kälteanlagenbauer’ or ‘staatlich geprüfter Techniker Fachrichtung Kälteanlagentechnik’.

(c) Personal qualification encompasses appropriate knowledge about: systems engineering, pertinent regulations and acknowledged rules of technology, and the essential characteristics of the serviced/recovered substances and preparations and inherent hazards.

(d) Routine inspections which do not require intervention at the refrigeration fluid circuit can also be performed by maintenance personnel that were instructed by a certified technician.

(3) Perform the annual leak tests for fixed equipment with a refrigeration fluid charge of more than 3 kilograms. Close detected leaks immediately.

(4) Monitors and inspects equipment containing fluorinated refrigerants according to the inspection schedule in Appendix B. Monitoring and repairs shall be documented in an operations manual(Betriebshandbuch). Documentation shall also detail the type and amount of used or recovered refrigerants. The operations manual shall have the most recent 5-years data and shall be made available to a German Federal State-approved authority on request.

(5) Only use state of the art equipment for leak tests and recovery of ODS.

(6) Recommend to supervisors the equipment replacement/upgrade were necessary, and document this.

(7) Provide supervisors with documentation on the work performed, to include turn-in and/or disposal documentation, and equipment characterizations needed for the ODS inventory.

(8) Keep records of all ODS maintenance work as long as needed to prove legal compliance.

(9) Keep records of the amounts and disposal of recovered ODS for at least 3 years after closure of facility.

e. Maintenance Personnel.

(1) Know and follow the procedures required (see references) for safe (precautionary measures) handling of ODS.

(2) Only perform routine inspections which do not require intervention at the refrigeration fluid circuit. Only perform this work if they have been instructed by a certified technician.

(3) Inform their supervisors immediately upon actual or potential leaks and safety or environmental hazards identified.

f. Other Employees.

- Know and follow the procedures required (see references) for safe (precautionary measures) handling of ODS. Inform supervisor immediately upon actual or potential leaks and safety or environmental hazards identified.

6. ODS Handling.

a. Use Prohibition.

(1) The use (i.e. for maintenance or servicing) of the following ODS is prohibited:

(a) chlorofluorocarbons (CFCs)/ Fluorchlorkohlenwasserstoffe (FCKWs),

(b) other fully halogenated CFCs/ andere vollhalogenierte FCKW,

(c) halons (except for critical use)/ Halone (außer für kritische Einsatzbereiche),

(d) carbon tetrachloride/ Tetrachlorkohlenstoff,

(e) 1,1,1-trichloroethane/ 1,1,1-Trichlorethan,

(f) hydrobromofluorocarbons/ teilhalogenierte Fluorbromkohlenwasserstoffe,

(g) chlorbromomethane/ chlorbromomethane.

(2) The use of new or un-recycled class II ODSs in the maintenance and servicing of refrigeration and air-conditioning equipment is prohibited staring 1 January 2010.

(3) The use of all class II ODSs in the maintenance and servicing of refrigeration and air conditioning equipment is prohibited starting 1 January 2015.

b. Pollution Prevention Procedures.

(1) All precautionary measures practicable have to be taken to prevent and minimize leakage of ODS.

(2) Any operation, maintenance, or shut down procedures involving ODS must not allow the substances to escape into the atmosphere and must conform to the state of the art practices, except for actual emergency use of fire extinguishing substances.

(3) Only qualified persons having the appropriate equipment will perform operation, maintenance, or shut down operations of ODS containing equipment and facilities.

c. Labeling.

(1) Containers or products containing restricted use ODS should be marked permanently "Enthaelt ozonabbauende FCKW – Contains ozone-depleting substances".

(2) Containers for fire extinguishing substances containing more than 1 percent by mass of Halon 1211, 1301, or 2402 must be marked permanently "Enthaelt ozonabbauendes Halon – contains ozone-depleting halons."

d. ODS Recovery and Turn in.

(1) ODS contained and refrigeration, air-conditioning and heat pump equipment, equipment containing solvents, and fire protection systems and fire extinguishers have to be recovered for disposition before dismantling or disposal of equipment. This can either be performed by certified technicians on-site, or by certified personnel of the DRMO, or DDDE.

(2) The CFCs and Halons shall be recovered and turned-in at DDDE-Germersheim Army Reserve:

(a) CFCs 11, 12, 114, 500, 502, and

(b) Halons 1202, 1211, 1301.

(3) All ODS containers being shipped to DDDE-Germersheim will be coordinated in advance through the Transportation Office (DSN 378-3344/ 3871 or civilian 07274-58344/ 58871). Further information on the turn-in procedures is available under http://www.denix.osd.mil/denix/Public/News/DLA/ODS/sect2.html.

(4) ODS/ODS containing equipment not to be turned in at the Army Reserve have to be turned-in at the DRMO using DD Form 1348-1A. Generating activities shall attach the following warning to the turn-in document and equipment: 'WARNING: Contains (insert name

of substance), a substance which harms public health and environment by destroying ozone in the upper atmosphere.'

(5) The generating activities shall remove and recover refrigerants prior to turn-in of unserviceable or scrap refrigeration equipment. Any ODS removal service may only be performed by certified technicians.

(6) The generating activities shall remove and recover refrigerants prior to turn-in of unserviceable or scrap refrigeration equipment. Any ODS removal service may only be performed by certified technicians.

(7) The facility has to keep documentation (such as receipts) on all ODS/ODS containing equipment turned-in for at least three years.

e. ODS inventory.

(1) The DPW ED keeps an inventory of all ODS-containing equipment within the installations of the USAG Baumholder. Amongst others, this inventory contains an assessment of the condition of each piece of ODS-containing equipment, and recommendations (no action required/ upgrade/ replace).

(2) It is IMCOM-E and Garrison policy to follow the recommendations of the inventory.

f. Revisions.

The media manager will keep this procedure updated as needed.

7. POCs. The points of contact for this SOP are Mr. Kai Weber, at commercial telephone: 06783-68154, DSN: 485-8154, email: Kai.Weber.ln@mail.mil and Mr. Mutinda, at commercial telephone: 06783-6-6146, DSN: 485-6146, email: Dominic.Mutinda.ln@mail.mil, DPW-ED.

3 Encls
1. Figure 1
2. Figure 2
3. Figure 3

SAM R. McADOO
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Commanding

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Figure 1: Roles and Responsibilities Chart

ROLE	FACILITY	NAME	FIRST NAME	DSN	E-MAIL
DPW ED Media Manager		Weber	Kai	485-8154	kai.weber.ln@us.army.mil
Facility Manager	DPW	Hoffmann	Kurt	485-6465	kurt.hoffmann1.ln@mail.mil
	AAFES	Smith	Brian	06783-9999000	SmithBriana@aafes.com
	DECA	Garcia	Ted	485-6082	Ted.Garcia@deca.mil
	DoDDS	Baker	Marcus	485-7059	marcus.baker@eu.dodea.edu
	Clinics	Garner	Mariam	485-7323	mariam.garner@amedd.army.mil
Technical Supervisor	DPW	Patel	Yogendra	485-6317	yogendra.patel.ln@us.army.mil
	AAFES	Becker	Martin	063151226	BeckerM@aafes.com
	DECA	Nothnagel	Steffen	06301-796813	Steffen.nothnagel@wisag.de
	DoDDS	Walser	.	0152-22976496	
	Clinics	Olusola	Layiwola	485-2280	Layiuola.olusola@amedd.army.mil
Main Certified Technician	DPW	Hoffmann	Kurt	485-6465	kurt.hoffmann1.ln@mail.mil
	AAFES	Heser	Otmar	0171-3034066	HeserO@aafes.com
	DECA	Kühne	Göron	0172-67184471	goeron.kuehne@wisag.de
	DoDDS	Walser		0152-22976496	
	Clinics	Hoffmann	Kurt	485-6465	Kurt.hoffmann1.ln@us.army.mil

Figure 2: Leak Inspections of fluorinated Green House Gases

CONTENTS	INSPECTION SCHEDULE	SPECIAL REQUIREMENTS	
≥3 kg (6.6 lb)	at least once every 12 months	Recordkeeping: Quantity and type of fluorinated greenhouse gases used in equipment, refilled, and recovered. Other relevant information (company or technician servicing ,dates and inspection results)	
≥30 kg (66 lb)	at least once every 6 months		
≥300 kg (660 lb)	at least once every 3 months, or once every 6 months if a properly functioning appropriate leak-detection system is installed	Install leak-detection system	The leak-detection system shall be inspected at least annually for proper functioning
General	Equipment shall be inspected for leaks within 1 month after a leak has been repaired to ensure the repair is effective	Install leak-detection system	Fire-suppression systems installed before 4 July 2007 shall have leak-detection systems installed by 4 July 2010